Appendix Table 4-13

Funds spent for business R&D performed in the United States, by source of funds and selected industry: 2008–12

(Millions of dollars)

(Millions of dollars)				Paid for by others Companies								
							Com	ıpani	es			
Industry and NAICS code	AII R&D	Paid for by the company	Total		Federal		Domestic		Foreign a		All other organizations b	
					2012							
All industries, 21–33, 42–81 ^c	302,250	247,280	54,970		30,621	i	11,624		12,093		632	
Manufacturing industries, 31–33	208,415	170,197	38,218		24,059	i	4,553		9,320		286	
Chemicals, 325	57,225	50,867	6,359		369	i	1,374		4,605		11	
Pharmaceuticals and medicines, 3254	48,146	42,594	5,552		57		1,337		4,153		5	
Other 325	9,079	8,273	807		312		37		452		6	
Machinery, 333	14,254	13,294	960		385		278		192		105	
Computer and electronic products, 334	65,068	56,677	8,391		4,852		1,248		2,167		124	
Electrical equipment, appliances, and components, 335	3,087	2,900	187		44	i	10	i	132		1	
Transportation equipment, 336	42,305	21,344	20,961	i	18,268	i	1,312		1,359		22	
Automobiles, trailers, and parts, 3361-63	D	13,191	D		D		558	i	D		D	
Aerospace products and parts, 3364	24,817	7,140	17,677	i	16,895	i	749		D		D	
Other 336	D	1,013	D		D		5		D		D	
Manufacturing nec, other 31-33	26,476	25,115	1,360		141		331		865		23	

								Paid for by	othe	rs		
								Companies				
Industry and NAICS code	All R&D		Paid for by the company		Total	Federal		Domestic		Foreign a		All other organizations b
Nonmanufacturing industries, 21–23, 42–81	93,835		77,083		16,752	6,562		7,071		2,773		346
Information, 51	46,805		45,851		954	142		351		419		42
Software publishers, 5112	28,745		28,012		733	103		256		367		7
Other 51	18,060		17,839		221	39		95		52		35
Finance and insurance, 52	3,519		3,507		12	0		11		2		0
Professional, scientific, and technical services, 54	34,309		20,166		14,143	5,606		6,333		1,947		257
Computer systems design and related services, 5415	11,251	i	9,163	i	2,088	1,449		435	i	180		24
Scientific R&D services, 5417	16,544		6,788		9,756	2,596		5,512		1,540		108
Other 54	6,514		4,215		2,299	1,561		386		227		125
Nonmanufacturing nec, other 21–23, 42–81	9,202		7,559		1,643	814		376		405		48
						2011						
All industries, 21–33, 42–81 ^c	294,093		238,768		55,324	31,309	i	11,124		12,007		884
Manufacturing industries, 31–33	201,361		163,340		38,021	24,698	i	4,196		8,870		257
Chemicals, 325	55,324		49,988		5,337	110		1,320		3,867		40
Pharmaceuticals and medicines, 3254	45,949		41,111		4,838	52		1,285		3,474		27
Other 325	9,375		8,877		499	58		35		393		13
Machinery, 333	14,709		13,578		1,131	522		423		D		D

			Paid for by others									
							Com	pani	es			
Industry and NAICS code	All R&D	Paid for by the company	Total		Federal		Domestic		Foreign a		All other organizations b	
Computer and electronic products, 334	62,704	53,664	9,040		5,161		1,087		2,726		66	
Electrical equipment, appliances, and components, 335	3,595	3,417	178		76		24		74		4	
Transportation equipment, 336	40,880	20,275	20,605	i	D		1,086		D		D	
Automobiles, trailers, and parts, 3361-63	D	11,737	D		D		D		D		D	
Aerospace products and parts, 3364	26,054	7,585	18,469	i	17,806	i	592		D		D	
Other 336	D	D	D		D		D		D		D	
Manufacturing nec, other 31–33	24,149	22,418	1,730		D		256		D		D	
Nonmanufacturing industries, 21–23, 42–81	92,731	75,428	17,303		6,611		6,928		3,138		626	
Information, 51	41,865	41,014	851		D		321		D		D	
Software publishers, 5112	27,965	27,280	685		136		D		D		D	
Other 51	13,900	13,734	166		D		D		D		D	
Finance and insurance, 52	3,457	3,310	146		0		145		1		0	
Professional, scientific, and technical services, 54	38,219	23,368	14,851		5,848		6,227		2,213		563	
Computer systems design and related services, 5415	13,259	11,706	1,553		598		626		209		120	
Scientific R&D services, 5417	15,301	6,170	9,131		3,226		3,834		1,833		238	
Other 54	9,659	5,492	4,167		2,024		1,767		171		205	

			Paid for by others Companies										
							Com	pani	ies				
Industry and NAICS code	All R&D	Paid for by the company	Total		Federal		Domestic		Foreign a		All other organizations b		
Nonmanufacturing nec, other 21–23, 42–81	9,190	7,736	1,455		D		235		D		D		
											2010		
All industries, 21–33, 42–81 ^c	278,977	221,706	57,271		34,199	i	11,013		11,015		1,044		
Manufacturing industries, 31-33	196,712	159,579	37,133		26,739	i	3,655		6,375		364		
Chemicals, 325	58,038	53,555	4,483		180		D		D		D		
Pharmaceuticals and medicines, 3254	49,415	45,398	4,017		99		D		D		D		
Other 325	8,623	8,157	466		81		D		D		D		
Machinery, 333	9,955	9,384	571		98		176		282		15		
Computer and electronic products, 334	59,875	51,223	8,652		5,935	i	911		1,767		39		
Electrical equipment, appliances, and components, 335	3,321	3,141	180		84		D		D		D		
Transportation equipment, 336	42,913	21,076	21,837	i	20,191	i	1,016		541		89		
Automobiles, trailers, and parts, 3361–63	D	10,098	D		D		D		D		D		
Aerospace products and parts, 3364	29,854	10,152	19,702	i	18,921	i	635		D		D		
Other 336	D	826	D		D		D		D		D		
Manufacturing nec, other 31-33	22,610	21,200	1,410		251		D		D		D		
Nonmanufacturing industries, 21–23, 42–81	82,265	62,127	20,138		7,460		7,358		4,532		788		
Information, 51	36,853	36,085	768		152		244		D		D		

				Ral Federal Domestic Foreign a organiza b 695 140 134 D D 173 12 110 D O O 0 0 0 0 O <th></th>							
							Com	pani	es		
Industry and NAICS code	All R&D	Paid for by the company	Total		Federal		Domestic				All other organizations b
Software publishers, 5112	26,982	26,387	595		140		134		D		D
Other 51	9,871	9,698	173		12		110		D		D
Finance and insurance, 52	2,109	2,109	0		0		0		0		0
Professional, scientific, and technical services, 54	33,690	15,438	18,252		6,829		6,906		3,801		716
Computer systems design and related services, 5415	11,050	9,416	1,634		712		397		348		177
Scientific R&D services, 5417	12,140	2,851	11,968		3,279		5,344		3,144		201
Other 54	10,500	3,171	4,650		2,838		1,165		309		338
Nonmanufacturing nec, other 21–23, 42–81	9,613	8,495	1,118		479		208		D		D
					2009						
All industries, 21–33, 42–81 ^c	282,393	224,920	57,473		39,573		9,567		7,647		685
Manufacturing industries, 31–33	195,144	158,225	36,920		28,825		3,345		4,532		218
Chemicals, 325	53,328	49,876	3,452		207		1,263		1,961		D
Pharmaceuticals and medicines, 3254	44,936	41,751	3,185		113		1,247		1,813		11
Other 325	8,392	8,125	267		94		16		148		D
Machinery, 333	9,138	8,782	356		150		133		67		D
Computer and electronic products, 334	56,436	48,865	7,571		5,210		738		1,578		D
Electrical equipment, appliances, and components, 335	3,334	3,105	228		70		55		66		D

				A,114 23,023 757 251 D D D D 2,170 21,524 596 D D D D D 3,199 165 399 609 0,553 10,749 6,223 3,115 46							
							Com	pani	ies		
Industry and NAICS code	All R&D	Paid for by the company	Total		Federal		Domestic				organizations
Transportation equipment, 336	48,337	24,223	24,114		23,023		757		251		D
Automobiles, trailers, and parts, 3361–63	D	10,853	D		D		D		D		D
Aerospace products and parts, 3364	34,554	12,384	22,170		21,524		596		D		D
Other 336	D	986	D		D		D		D		D
Manufacturing nec, other 31–33	24,570	23,374	1,199		165		399		609		D
Nonmanufacturing industries, 21–23, 42–81	87,248	66,695	20,553		10,749		6,223		3,115		467
Information, 51	33,806	32,995	811		194		349		233		34
Software publishers, 5112	26,395	25,729	666		176		267		191		32
Other 51	7,411	7,266	145		18		82		42		2
Finance and insurance, 52	1,912	1,904	8		1		6		0		0
Professional, scientific, and technical services, 54	44,946	26,031	18,915		10,461		5,531		2,505		168
Computer systems design and related services, 5415	12,560	10,742	1,818		1,240		449		122		7
Scientific R&D services, 5417	17,270	7,981	9,289		2,657		4,397		2,110		125
Other 54	15,116	7,308	7,808		6,564		685		273		36
Nonmanufacturing nec, other 21–23, 42–81	6,584	5,765	819		93		337		377		265
					2008						
All industries, 21–33, 42–81 ^c	290,680	232,505	58,176		36,360		12,181		8,877		758

						Paid for by	othe	rs		
						Com	pani	ies		
Industry and NAICS code	AII R&D	Paid for by the company	Total	Federal		Domestic		Foreign a		All other organizations b
Manufacturing industries, 31–33	203,755	164,386	39,368	31,102		3,444		4,712		D
Chemicals, 325	58,250	55,042	3,207	197		814		2,182		15
Pharmaceuticals and medicines, 3254	48,131	45,169	2,962	137		796		2,017		11
Other 325	10,119	9,873	245	60		18		165		4
Machinery, 333	10,104	9,846	258	62		95		97		3
Computer and electronic products, 334	60,464	42,912	7,551	4,646		1,520		1,338		47
Electrical equipment, appliances, and components, 335	3,143	2,947	196	91		34		66		5
Transportation equipment, 336	50,552	23,039	27,513	25,941		774		768		D
Automobiles, trailers, and parts, 3361-63	13,140	12,234	906	D		D		D		D
Aerospace products and parts, 3364	36,941	10,371	26,570	25,805	i	649		D		D
Other 336	471	434	37	D		D		D		D
Manufacturing nec, other 31-33	21,242	30,600	643	165		207		261		D
Nonmanufacturing industries, 21–23, 42–81	86,926	68,118	18,807	5,258		8,737		4,166		D
Information, 51	37,695	36,922	772	229		217		D		D
Software publishers, 5112	28,221	27,665	556	176		117		D		D
Other 51	9,473	9,257	216	53		100		D		D
Finance and insurance, 52	1,092	1,084	8	0		7		*	i	0

					Paid for by others									
									Companies					
Industry and NAICS code	AII R&D		Paid for by the company		Total		Federal		Domestic		Foreign a		All other organizations b	
Professional, scientific, and technical services, 54	37,954		20,539		17,415		4,844		8,221		3,753		D	
Computer systems design and related services, 5415	12,146		8,569		3,577		784		1,183		1,490		120	
Scientific R&D services, 5417	17,913		8,708		9,205		2,115		4,726		2,008		D	
Other 54	7,895		3,262		4,633		1,945		2,312		255		D	
Nonmanufacturing nec, other 21–23, 42–81	10,185		9,573		612		185		292		D		D	
* = amount less than \$500,000; D = suppressed to avoid disclosure of confidential information; i = more than 50% of value imputed. NAICS = North American Industry Classification System; nec = not elsewhere classified.														

NOTES:

Detail may not add to total because of rounding. Industry classification was based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Excludes data for federally funded R&D centers.

SOURCES:

Bureau of Economic Analysis, Direct Investment and Multinational Enterprises (annual series), http://www.bea.gov/iTable/index_MNC.cfm, accessed 18 August 2015. National Science Foundation, National Center for Science and Engineering Statistics, Business R&D and Innovation Survey (annual series). Science and Engineering Indicators 2016

^a Includes foreign parent companies of U.S. subsidiaries.

b Includes U.S. state government agencies and laboratories, foreign agencies and laboratories, and all other organizations located inside and outside the United States.

^c Includes companies located in the United States that performed or funded R&D.